The Files

11 September 1957

[redacted] 25X1A9a

25X1A Trip Report, [redacted] Task Order 3 and 4

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25X1A 1. On 5 September 1957 a trip was made to the [redacted] at Philadelphia, Pa. to monitor the progress of [redacted] T.O. 3 and 4. Participating in discussions on these projects were: 25X1A

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[redacted] OC-O&T/SB 25X1 25X1A9a
OC-E/R&D-EP

2. The entire [redacted] technical proposal on the [redacted] and RT-17 100 watt transmitter was reviewed and several questions regarding the specifications were answered. No major changes in either specification were discussed. The purpose of this first planning conference was to establish a complete mutual understanding of proposals and specifications covering these two projects and to try and to anticipate some of the design problems expected during development. 25X1A5a1

3. The contractor was asked to document the weight figure of 60 lbs. given in the RT-17 proposal with a tentative list of weights of major components. He was also asked to provide maximum dimension figures as early in the development as possible.

4. The question of RT-17 packaging was considered at length and [redacted] agreed to investigate other techniques besides that suggested in the technical proposal. It was stressed that maintainability was a primary design consideration. Designs using a hinged panel which swings open for testing and repair, and a pull-out chassis drawer were discussed. 25X1A5a1

5. The go-no-go test set suggested by [redacted] in its proposal was rejected on the grounds that it did not satisfy the specification requirement to "provide the operator with full test data on the transmitter and power supply." It was suggested that the go-no-go 25X1A5a1

test could be built into each module with neon indicator and push button and the separate test set be devoted entirely to the metering of test points for maintenance testing and repair. The use of test points within the transmitter was encouraged, however, since the RT-17 must still be fully maintainable with standard test equipment in the event that the accessory set is lost or broken.

6. At the request of SEB, the contractor was asked to investigate the possibility of providing balanced 150 ohm and 300 ohm output in the RT-17 in addition to the 72 ohm and 50-1500 ohm unbalanced output specified. [redacted] proposed an alternate antenna coupling unit for balanced output which the operator could substitute for his normal unbalanced antenna coupling unit when 150 or 300 ohm output was desired. 25X1A5a1

7. It was agreed that the RT-17 panel would include a suitable d.c. milliameter as an aid to tuning and testing.

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8. [redacted] was advised that although the specifications permit a VFO oven in the RT-17, it would be most desirable to eliminate it. Since almost the same tolerances are being met in the OS-4 which a has no oven. The contractor was hopeful that the oven be omitted from the RT-17.

9. The importance of the specification section on harmonic radiation and backwave suppression was discussed at length in view of the fact that an unkeyed oscillator is being proposed. Preliminary calculations have led the contractor to believe there will be no difficulty in meeting the harmonic and VHF suppression requirements.

10. On the basis of experience gained with the RR/AA-SB11, [redacted] feels it can furnish an OS-4 tuner with a calibration accuracy of 500, 1000, and 1500 cycles on bands 1, 2 and 3 respectively. The latest receiver resetability figure of ±3 kc is expected to be bettered in both the OS-4 and RT-17. These calibration accuracies hinge upon [redacted] ability to procure close-tolerance crystals (.003% or better) from a crystal supplier. 25X1A5a1 25X1A5a1

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11. [redacted] was advised that the GFE equipment being furnished under the OS-4 Task had been ordered and should be delivered in about 60 days. A copy of the RS-1, RS-6 and RS-6A instruction manual, were turned over to the contractor. [redacted] also requested as GFE an accessory modulator and an FSK keyer in order to insure the compatibility required in the specification. They were told that the accessory modulator did not yet exist but would be designed to match this specific transmitter. A resume of the characteristics of FSK keyers now in use is being prepared. 25X1A5a1

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[redacted]

OC-E/R&D-EP/WJS:mjr (10 Sept. 57) cc: R&D Subject File/Monthly Report/



SEB/OCO&T/SB/R&D Lab/R&D Chrono/EP Chrono